vitality. Australian values differed from those reported elsewhere. **CONCLUSIONS:** This research provides an Australian algorithm for cost-utility analyses using the SF-6D. DCEs are a valuable alternative approach to the time trade-off or standard gamble. The explicit consideration of design principles is a major strength of the study reported here. More work, however, is required to identify how DCEs can best be employed to estimate utility weights for health states.

PODIUM SESSION II: CLINICAL OUTCOMES STUDIES

CL1
A NOVEL METHOD FOR CALCULATING PREVALENCE OF MULTIPLE SCLEROSIS IN AUSTRALIA

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OBJECTIVES: To determine the prevalence of Multiple Sclerosis (MS) in Australia in 2010 using a novel method based on Australia-wide prescription data for MS-specific disease modifying agents. The results obtained were validated against the results of the Australian Bureau of Statistics (ABS) survey of disability, ageing and carers (SDAC) of 27,600 households and 200 non-private dwellings conducted in 2009, and against MS Society registered client numbers. **METHODS:** We obtained the total number of scripts for medications that are used exclusively for the treatment of MS written in Australia for the period January-December 2010 from the Australian Pharmaceutical Benefit Services (PBS). Numbers of scripts dispensed were obtained by state for Betaferon, Avonex, Copaxone, Rebif 44, and Tysabri. Additional data, not captured in the PBS prescription data, was supplied by Biogen on the number of prescriptions for Tysabri issued in the same period under the Special Access Service arrangement. The percentage of MS patients using these medications (42-46%) was taken from state-specific surveys of MS Society clients. To estimate the total number of persons with MS we divided the annual number of scripts dispensed by 12 and adjusted for penetration of MS immuno-modifiers by state. Sensitivity analysis was performed. **RESULTS:** The prevalence of MS in Australia in 2010 calculated using the prescription method was 21,283 people (95.5 per 100,000). This compared to 21,200 (95.2/100,000) obtained from the ABS-SDAC survey of 2009, and 19,889 (89.3/100,000) using MS Society client numbers. Prevalence increased with increasing latitude. Results were sensitive to the percentage of people with MS assumed to be treated with disease modifying agents. **CONCLUSIONS:** Nation-wide prescription data for MS-specific disease modifying agents is a novel method for calculating prevalence of MS that generates results that are similar to other potentially more resource intensive methods for calculating MS prevalence.

CL2
USEFULNESS OF DAYS LOST DUE TO DISABILITY AS A NEW METHOD IN MEASURING BURDEN OF ADVERSE DRUG REACTIONS

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OBJECTIVES: To find out the usefulness of Days Lost due to Disability (DLD) in calculating the burden of adverse drug reactions due to diclofenac. **METHODS:** The study was conducted in 2010 for the cohort dispensed with diclofenac tablets in one pharmacy at South India. Those who were co-prescribed with other anti-inflammatory agents and having serious co-morbidity were excluded from the study. The study subjects (18-65 years) were instructed to report any suspected side effects on their next visit or through phone call. DLD is calculated similar to Years Lost Due to Disability (YLD) by multiplying the occurrence of Adverse Drug Reactions (ADRs), its duration and disability weight. DW was calculated in an analogue scale of 0-1 were 0 is perfect health. Naranjo Causality assessment was used to qualify ADRs on it probability. **RESULTS:** In a total of 1000 prescription of 943 patients' 34 types of ADRs were identified with a total score of 561. The most occurring ADRs were on gastrointestinal system (48%). Abdominal pain occurred for 107 times. There were only 34 cases of peptic ulcers but it was the most disabling ADR with a DLD of 0.078. There were only few cases of acute renal failure (DLD 0.012) and Steven-Johnson Syndrome (DLD 0.013); still they scored a significant DLD as the outcome was more damaging. DLD can be calculated only in recovered patients. DLD is a useful indicator of assessing the burden of ADRs managed in different health care settings with varying resources. **CONCLUSIONS:** DLD could represent the burden of ADR on health. It considers the occurrence, duration and reduction in health due to ADRs. So DLD could be a useful tool in assessing the outcome of ADRs.

CL3
ANTICOAGULATION CONTROL OF A PHARMACIST MANAGED ANTICOAGULATION CLINIC IN A NATIONAL REFERRAL CENTRE IN MALAYSIA

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OBJECTIVES: Limited evidence is available regarding pharmacist managed anticoagulation clinic (PMAC) in the Southeast Asian region where there is marked difference in terms of care model, genetic composition and patient demographics. This study aimed at comparing the anticoagulation clinic managed by the pharmacist with physician advisory and the usual medical care provided in Kuala Lumpur Hospital (KLH) in terms of anticoagulation control and adverse outcomes. **METHODS:** A 2302 bedded government tertiary referral hospital in Malaysia. A 6-month retrospective cohort study of the effectiveness of 2 models of anticoagulation care, the pharmacist managed anticoagulation clinic (PMAC) and usual medical clinic (UMC) in KLH was conducted, where a random number generator was used to recruit patients. The UMC patients received standard medical care where they are managed by rotational medical officers in the Physicians' Clinic. As for the PMAC with physician advisory, the pharmacist will counsel and review the patients Internationalised Normalization Ratio (INR) at each clinic visit and also adjust the patients' warfarin dose accordingly. Patients are referred to physicians if immediate attention is required. The main therapeutic outcome is time in therapeutic range both actual and expanded TTR and thromboembolic and bleeding complications. **RESULTS:** Each of the PMAC and usual medical care recruited 92 patients, which totals to 184 patients. The patient demographics in terms of age, race and indication of treatment were comparable. At the end of the 6 months follow-up, patients in the PMAC group had significantly higher actual-TTR (65.1% vs. 48.3%; $P<0.05$) compared to those in usual medical care group. Rates of bleeding incidences were 6.5 versus 21.7 events per 100 person-years for the PMAC and UMC groups, respectively. **CONCLUSIONS:** PMAC provided a significantly better anticoagulation care than usual medical care. The PMAC with physician advisory has been successfully implemented in Kuala Lumpur Hospital.

CL4
DRUG SWITCHING EVENTS AMONG USERS OF NSAIDS WITH OR WITHOUT GASTRO-PROTECTIVE DRUGS AS AN EARLY DETERMINANT OF DISSATISFACTION FROM GASTROINTESTINAL ADVERSE EVENTS

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OBJECTIVES: To examine the drug switching events among non-steroidal anti-inflammatory drugs (NSAIDs) users and co-medication with gastro-protective drugs (GPDs) as an early determinant of dissatisfaction from gastrointestinal (GI) adverse events. **METHODS:** The Taiwan Longitudinal Health Insurance Database 2000 during 1997 to 2008 was used to identify patients with newly diagnosis of RA (ICD-9-CM: 714.0-714.3) or OA (715.0-715.9) in 1998-2007 to allow for one or more follow-up year. For each patient, the intervals were identified by any gaps of 30 or more days between drug dispensing coverage. Intervals were classified into 3 categories: traditional NSAID (tNSIAD), preferential (pC2SI: meloxicam, etodolac, nabumetone and nimesulide) or specific COX-2 selective inhibitor (COXIB: celecoxib, rofecoxib and etoricoxib). For each patient-interval, the event of switching from one of the 3 categories to another was considered as the dissatisfaction with early GI adverse events. Intervals with less than 60 days of NSAID dispensing were excluded. Considering with/without GPDs, these intervals were divided into 7 medication groups: tNSAID alone, COXIB alone, or pC2SI alone, tNSAID with histamine-2 antagonist (H2RA), proton pump inhibitor (PPI), COXIB, or pC2SI. The Cox regressions with covariates including age, gender, number of prior GI hospitalization, co-medication, comorbidity were used to estimate the hazard ratios (HRs) of drug switching among medication groups. **RESULTS:** There were 271,683 intervals identified from 97,834 patients. Given no prior GI history, patients in tNSIAD+H2RA and tNSIAD+PPI were significantly less likely to switch (HR=0.63, 95%CI=0.61-0.65); HR=0.82, 95%CI=0.72-0.93) than the tNSAID only. The HRs for drug switching in COXIB, tNSIAD+ COXIB, pC2SI and tNSIAD+pC2SI, however, were 8.04, 6.64, 10.353 and 9.93 (all p value<0.0001), respectively. **CONCLUSIONS:** Combination of H2RA or PPI was shown less likely to switch than tNSAID alone. These results suggest that H2RA or PPI could be an acceptable augmentation in clinical practice for reducing potential GI adverse events.

PODIUM SESSION II: CARDIOVASCULAR DISORDERS OUTCOMES STUDIES

CV1
STATIN PRESCRIPTION IN AUSTRALIA: A COMPARISON OF DIFFERENCES IN PRESCRIBED DOSES AND POTENTIAL IMPACT ON HEALTH OUTCOMES

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OBJECTIVES: Statins, which vary considerably in their lipid-lowering potencies, are prescribed at non-equivalent doses in Australia. This study sought to estimate the effects of non-equivalent prescribing on low-density lipoprotein cholesterol (LDL-C) levels and cardiovascular risk for the four most commonly prescribed statins. **METHODS:** The weighted average daily doses (WADDs) of pravastatin, simvastatin, atorvastatin and rosuvastatin prescribed in 2011, in Australia were sourced from Pharmaceutical Benefit Scheme (PBS) data. Dose-specific, LDL-C modifying potencies of these four statins were derived from the meta-analysis by Law et al (BMJ 2003). The relationship between reduction in LDL-C achieved by statin therapy and reduction in cardiovascular risk was derived from the recent meta-regression by the Cholesterol Treatment Trialists' Collaboration (Lancet 2010). This showed that for every 1mmol/L reduction in LDL-C, the relative risk for a major cardiovascular (coronary and/or stroke) event was 0.78 (95%CI 0.76-0.80). **RESULTS:** In 2011 the WADDs for pravastatin, simvastatin, atorvastatin and rosuvastatin were 38.4mg, 36.3mg, 34.2mg and 14.9mg, respectively. The corresponding expected reductions in LDL-C were 29.0%, 37.3%, 48.2% and 44.9%. Assuming a pre-treatment LDL-C of 4.13 mmol/L (the threshold for treatment recommended in international guidelines), these lipid changes translated to expected reductions in the risk of a major cardiovascular event of 26.3%, 33.9%, 43.8% and 40.0% for pravastatin, simvastatin, atorvastatin and rosuvastatin, respectively. **CONCLUSIONS:** In Australia, atorvastatin and rosuvastatin are prescribed at higher LDL-C-reducing doses than pravastatin and simvastatin, and hence would be more effective at reducing cardiovascular risk. The advantages of atorvastatin and rosuvastatin will be further enhanced when their acquisition prices fall in 2012.